

Claims

- [c1] A multifunctional device that processes electronic data, comprising:
- a processor that processes the electronic data;
 - a memory that stores the electronic data;
 - an alteration circuit that alters the structure of the stored electronic data; and
 - a controller that determines whether idle time exists after the electronic data is stored in the memory, and controls the alteration circuit to alter the electronic data when the controller determines that idle time exists.
- [c2] The multifunctional device of claim 1, further comprising:
- an input terminal that inputs data into the multifunctional device; and
 - an output terminal that outputs the electronic data from the multifunctional device.
- [c3] The multifunctional device of claim 1, the idle time being a duration of time that the electronic data remains in the memory without being processed, and the controller using a predetermined value to determine whether the idle

time exists when the electronic data is stored in the memory.

- [c4] The multifunctional device of claim 3, the predetermined value being preset by a user, and the controller using the predetermined value to control the alteration circuit to automatically alter the electronic data when it determines that the idle time exists.
- [c5] The multifunctional device of claim 1, the processor including a second processor that is controlled by the controller to process the electronic data prior to the electronic data being stored in the memory, the processing including the alteration circuit altering the electronic data by compressing the electronic data.
- [c6] The multifunctional device of claim 1, the processor including a third processor that is controlled by the controller to process the electronic data after the electronic data has been requested by an output terminal but prior to the electronic data being transmitted to the output terminal, the processing including the alteration circuit altering the electronic data.
- [c7] The multifunctional device of claim 5, the controller including a second controller that controls the second processor and the alteration circuit to alter to electronic

data.

- [c8] The multifunctional device of claim 6, the controller including a third controller that controls the third processor and the alteration circuit to alter to electronic data.
- [c9] The multifunctional device of claim 5, the alteration circuit including a compression circuit that recompresses the electronic data during the idle time and after the electronic data has been stored in the memory.
- [c10] The multifunctional device of claim 1, the alteration circuit including a circuit that alters one of at least sharpness, contrast, color and exposure of the electronic data.
- [c11] The multifunctional device of claim 1, the alteration circuit operations are non-destructive and provide additional value and capability beyond the basic user requirements for a specified operation.
- [c12] The multifunctional device of claim 10, the alteration circuit including a circuit that extracts metadata from the electronic data.
- [c13] A method of processing electronic data, comprising:
 - processing the electronic data;
 - storing the electronic data; and
 - controlling the electronic data by determining

whether idle time exists after the electronic data is stored; and
altering the stored electronic data after determining that the idle time exists.

[c14] The method of processing electronic data of claim 13, further comprising:
inputting an image that is converted into the electronic data; and
outputting the electronic data to an output terminal.

[c15] The method of processing electronic data of claim 13, further comprising:
determining whether the idle time exists using a predetermined value when the electronic data is stored, the idle time being a duration of time that the electronic data is stored without being processed.

[c16] The method of processing electronic data of claim 15, further comprising:
presetting the predetermined value, and using the predetermined value to automatically control the altering of the electronic data after it is determined that the idle time exists.

[c17] The method of processing electronic data of claim 15, further comprising:

controlling the electronic data to be processed prior to the electronic data being stored in the memory, the processing including the altering of the electronic data by compressing the electronic data.

[c18] The method of processing electronic data of claim 13, further comprising:

controlling the electronic data to be processed after the electronic data has been requested by an output terminal, but prior to the electronic data being transmitted to the output terminal, the processing including the altering of the electronic data.

[c19] The method of processing electronic data of claim 13, further comprising:

altering the electronic data to include a change in one of at least sharpness, contrast, color and exposure of the electronic data.

[c20] The method of processing electronic data of claim 13, further comprising:

extracting metadata from the electronic data.

[c21] The method of processing electronic data of claim 13, further comprising:

altering the electronic data during the idle time to include one of at least reformatting the electronic data

into a summary page and recompressing the electronic data after the electronic data is stored.

[c22] A method of using a multifunctional device that includes a processor, a memory, a controller and an altering device, comprising:

- processing electronic data with the processor;
- storing the electronic data in the memory; and
- controlling the electronic data using the controller to determine whether a predetermined amount of idle time exists after the electronic data is stored; and
- altering the stored electronic data when it is determined that the predetermined amount of idle time exists.